

## TITLE: STIRRER

### BACKGROUND OF THE INVENTION

#### 1. Field of the invention

The present invention is related to a stirrer, and especially to a  
5 stirrer with fast stirring speed and uniform stirring effect; it suits  
stirring devices for paints (such as oil paint) used on a building.

#### 2. Description of the Prior Art

After construction or maintenance of a building, people mostly use  
paints such as oil paint to beautify the outlook of the building. Oil  
10 paints normally are divided into two classes: one is a kind of watery  
paint in which water is the main solvent, the other is a kind of oily paint  
including non water-mixable solvent; products of the watery paint can  
be clearly removed just by using soap and water, while the oily paint  
needs certain kind of diluent such as solvent rosin, banana scent solvent  
15 or toluene to be removed.

Paints are mixtures of pigments and resin liquids, specific weights  
of the ingredients of them are different, it is inevitable that segregation  
and sediment of pigments may occur during the procedure of production,  
storage till use, hence they must be adequately stirred and mixed up till  
20 being completely uniform before use, and shall be kept on stirring  
during work period.

Before painting, a worker normally uses a stirrer to stir paint. In  
order to increase the speed and uniformity of painting, as shown in Fig.  
1, a conventional stirrer 1 is composed of a shank 10 and a stirring  
25 member 11; the stirring member 11 is combined with one end of the

shank 10, and is in an undulated form, it is provided thereon spacedly with a plurality of tapered stirring blades 112, an elongated slot 111 is formed between every two stirring blades 112, hence when the shank 10 is rotated, the stirring blades 112 can rotate together with the shank 10,  
5 and the paint can flow among the elongated slots 111 (not shown).

However, in conventional designing of a stirrer, only a goal of liquid stirring is required, when it is desired to increase the uniformity of paint, much time needs to be taken for stirring, this is not ideal.

In view of the above stated, in order to eliminate the flaws and to  
10 increase the speed and uniformity of painting stirring, the present invention is provided.

#### SUMMARY OF THE INVENTION

The primary object of the present invention is to provide a stirrer with fast stirring speed and uniform stirring effect.

15 In order to achieve the above stated object, the stirrer provided in the present invention comprises a stirring shank and a flow-disturbing member; the flow-disturbing member is provided on the ending section of the stirring shank.

The flow-disturbing member provided on the stirring shank is  
20 composed of two elongated strip members respectively provided on the upper and lower edges thereof as well as spacedly provided with a plurality of flow-disturbing blades; each flow-disturbing blade is allocated between the two elongated strip members in a predetermined inclined angle, so that when the stirring shank is rotated, liquid can flow  
25 between every two neighboring flow-disturbing blades.

The stirring shank gradually spreads outwards from the middle section thereof to form a wide surface, the shank has an abutment annulus near the upper end thereof for abutting and connecting thereon of an external rotating equipment, the shank has on the lower end thereof a protruding positioning block.

Thereby, when the stirring shank is rotated, liquid can flow between every two neighboring flow-disturbing blades.

The present invention will be apparent after reading the detailed description of the preferred embodiment thereof in reference to the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view showing the appearance of a conventional stirrer;

Fig. 2 is a perspective view showing the appearance of an embodiment of the present invention;

Fig. 3 is a schematic front view of a flow-disturbing member of the embodiment of the present invention;

Fig. 4 is a top view of the embodiment of the present invention;

Fig. 5 is a schematic perspective view showing use of the embodiment of the present invention.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring firstly to Figs. 2-5, an embodiment of the stirrer provided in the present invention as depicted comprises a stirring shank 2 and a flow-disturbing member 3; the flow-disturbing member 3 is provided on the ending section of the stirring shank 2.

The stirring shank 2 gradually spreads outwards from the middle section thereof to form a wide surface 23, the shank 2 has an abutment annulus 21 near the upper end thereof for abutting and connecting thereon of an external rotating equipment 4, and the shank 2 has on the lower end thereof a protruding positioning block 22 having thereon a hole 221 for hanging.

The flow-disturbing member 3 provided on the stirring shank 2 is composed of two elongated strip members 31, 32 respectively provided on the upper and lower edges thereof as well as spacedly provided with a plurality of flow-disturbing blades 33; each flow-disturbing blade 33 is allocated between the two elongate strip members 31, 32 in an inclined angle, the flow-disturbing blades 33 are mutually parallel to form a shape of a fence. Particularly, each flow-disturbing blade 33 is allocated between the two elongated strip members 31, 32 in an inclined angle of 40-50 degrees (as shown in Figs. 3, 4),

Thereby, when the stirring shank 2 is rotated, liquid 5 can flow between every two neighboring flow-disturbing blades 33.

When in practicing, such as is shown in Fig. 5, when the upper end of the stirring shank 2 is connected with the external rotating equipment 4, it can be driven to rotate; by virtue that the mutually parallel flow-disturbing blades 33 allocated each between two elongated strip members 31, 32 in an inclined angle of 40-50 degrees, the liquid (such as oil paint) 5 can flow downwards to form a vortex, this can increase the speed and uniformity of stirring. After use, the stirring shank 2 can be hung up at some place (not shown) by using the hole 221 provided on

the positioning block 22 on the lower end of the stirring shank 2.

The present invention thereby has the following advantages:

1. The present invention takes advantage of the arrangement of the flow-disturbing blades to generate a vortex during stirring, it can  
5 largely increase the speed of stirring, and thereby can increase uniformity of stirring.
2. The present invention is structurally simple, and can be convenient for hanging up or carrying by using the hole provided on the positioning block on the lower end of the stirring shank.

10 Accordingly, the present invention can provide a stirrer to get the expected objects. Having thus described my invention with extremely practical value, what I claim as new and desire to be secured by Letters Patent of the United States are:

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